NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
FACT SHEET

Permittee and Mailing Address:	South Pacific Petroleum Corporation 816 North Marine Corps Drive, Eva Building Tamuning, Guam 96913
Permitted Facility and Address:	1118 Cabras Highway Piti, Guam 96925
Contact Person:	Mr. Douglas Dean Vice-President of Operations (671) 472-8871
NPDES Permit No.:	GU0020079

PART I - STATUS OF PERMIT

South Pacific Petroleum Corporation (hereinafter, the "permittee") has applied for renewal of its National Pollution Discharge Elimination System ("NPDES") permit pursuant to U.S. Environmental Protection Agency ("EPA") regulations set forth in Title 40, U.S. Code of Federal Regulations ("CFR"), Part 122.21, for the discharge of treated effluent from its petroleum bulk storage and distribution facility to Category M-3 marine waters of Apra Harbor. These regulations require any person who discharges or proposes to discharge pollutants from a point source into waters of the U.S. to submit a complete application for a NPDES permit, including a renewal of a permit. The permittee is currently discharging to Apra Harbor under the NPDES permit No. GU0020079, which became effective on January 11, 2000, and expired on January 10, 2005. On January 14, 2005, the permittee submitted an application for renewal of its NPDES permit. On January 6, 2006, the permittee provided additional information as part of the renewal application.

PART II - DESCRIPTION OF FACILITY

The permittee owns and operates a bulk petroleum storage and wholesale distribution facility (the "facility") that is located at 1118 Cabras Highway on Cabras Island in Piti, Guam. The facility consists of six aboveground storage tanks ("ASTs") that store gasoline and diesel and three ASTs for that store other petroleum products such as gasoline additives and residual jet fuel. The facility has a combined total storage capacity of over seven million gallons of petroleum products. All ASTs are located within secondary containment. Petroleum products are received from ships through four underground pipelines that connect the facility to a dock on Apra Harbor. The facility is approximately 1,500 feet from the shoreline of Apra Harbor. Petroleum products are stored in ASTs and distributed throughout the island via tanker trucks.

PART III - DESCRIPTION OF RECEIVING WATER

To protect the designated uses of surface waters of the U.S., the Territory of Guam ("Guam") has adopted water quality criteria for marine waters depending on the level of protection required. Apra Harbor is a near-shore territorial water of Guam and is designated as a M-3 or "Fair" category marine water according to *Guam Water Quality Standards, 2001 Revision* (Public Law 26-113, June 18, 2002, Guam Environmental Protection Agency). Guam's water quality standards state that "water in this category is intended for general, commercial and industrial use, while allowing for protection of aquatic life, aesthetic enjoyment and compatible recreation with limited body contact. Specific intended uses include the following: shipping, boating and berthing, industrial cooling water, and marinas." During facility operations, the permittee discharges to Apra Harbor through the following discharge outfalls:

Discharge Outfall No.	Latitude	Longitude	Outfall Description
001	13 27 '42" N	144 39'49" E	Drainage from bulk storage area and Pipeline Receipt and Transfer Manifold Area
002	13 27'42" N	144 39'48" E	Drainage from Tank Truck Loading Area

PART IV - DESCRIPTION OF DISCHARGE

The permittee stores and distributes a variety of petroleum products to on-island facilities and/or companies. Effluent discharges from Discharge Outfall No. 001 include tank bottom water draws, which originate at the lowest inner part of a petroleum storage tank where liquid drains from the interior spaces as a result of rainwater accumulation and water condensation from the petroleum product itself; ship to shore transference spills and leaks; and storm water runoff from the storage tank farm area. For Discharge Outfall No. 002, effluent discharges include storm water runoff from the tank truck loading area. All facility discharges are treated by an oil and water separator prior to release from the two discharge outfalls described above. The estimated maximum flow rate of Discharge Outfall Nos. 001 and 002 is 0.0149 and 0.0063 million gallons per day ("MGD"), respectively. No mixing zone has been authorized for either outfall. Table 1 summarizes the characteristics of the discharge based on the monthly Discharge Monitoring Report ("DMR") forms from the period of April 2000 to December 2004 and the permittee's NPDES permit application, EPA Form 3510-2C, dated January 14, 2005. At the request of EPA, the permittee submitted additional information on January 6, 2006, to supplement the original application.

PART V - DETERMINATION OF NUMERICAL EFFLUENT LIMITATIONS

When determining effluent limitations, EPA must consider limitations based on the technology available to treat the pollutant(s) (i.e., technology-based limitations) and limitations that are protective of water quality standards (i.e., water quality-based limitations). In accordance with

Table 1 – Comparison of effluent limitations from the previous permit period (2000-2005) and effluent data from the Monthly Discharge Monitoring Report ("DMR") forms and permit application.

Pollutant/ Parameter	Daily Max. Allowable Effluent Limit from 2000 Permit	Daily Maximum Concentration from DMR Forms		Maximum 30-Day Concentration from Permit Application	
		Discharge Outfall No. 001	Discharge Outfall No. 002	Discharge Outfall No. 001	Discharge Outfall No. 002
Flow Rate (MGD)[1]	NA[2]	0.3590	0.3590	TBD[3]	TBD
pH (Std. Units)[4]	6.5/8.5	----	----	TBD	TBD
BOD (mg/l)	NA	----	----	TBD	TBD
COD (mg/l)	NA	----	----	TBD	TBD
Ammonia (mg/l)	NA	----	----	TBD	TBD
TSS (mg/l)	NA	----	----	TBD	TBD
Oil and Grease (mg/l)	15	4.9	12.3	3.18	2.77
Lead (mg/l)	0.0081	ND[5]	ND	ND	ND
Benzene (mg/l)	0.071	1.4	0.045	0.0039	ND
Toluene (mg/l)	NA	2.19	0.041	0.028	0.0006
Ethylbenzene (mg/l)	NA	0.057	0.006	0.0195	ND
Xylene (mg/l)	NA	1.05	0.023	0.03	ND

[1]MGD means million gallons per day.
[2]Not applicable since no effluent limit was established for the pollutant or parameter in the 2000 permit.
[3]To be determined; the permittee will be providing this information as it becomes available.
[4]pH effluent limits and concentrations reported as the minimum and maximum values.
[5]The permittee reported that the concentration is less than the laboratory's practical quantitation limit.

40 CFR Parts 122.44 and 125.3 and Guam water quality standards, technology and water quality-based effluent limitations for the draft permit are proposed using daily maximum limits.

A. Technology-based Effluent Limitations

The draft permit contains a technology-based effluent limit for oil and grease since oil and grease are common components of oily wastewater, and was found to be in the effluent discharge at a concentration that exceeded the technology-based effluent limit of 15 mg/l in the previous permit. The effluent limit for oil and grease is based on EPA's Best Professional Judgment ("BPJ") as part of developing technology-based effluent limits since there are no applicable effluent limitation guidelines and performance standards for oil and grease. Section 402(a)(1) of the Clean Water Act ("CWA") provides for the establishment of BPJ-based limits when specific national effluent guidelines are not available for a pollutant of concern.

The proposed BPJ daily maximum discharge limit for oil and grease is 15.0 mg/l. This limit is consistent with other similar facilities that treat oily wastewater and facility storm water in Guam. In addition to this technology-based numeric limit, the narrative water quality-based limit for oil and grease, such as prohibiting visible sheening, are included in the draft permit.

B. Water Quality-Based Effluent Limitations

In accordance with 40 CFR 122.44(d), the draft permit proposes water quality-based effluent limits for several pollutants or parameters since EPA has determined, based on effluent data provided by the permittee and the nature of the discharge, that the effluent discharged from the facility causes, has the reasonable potential to cause, or contributes to an exceedance of Guam water quality standards. When determining whether an effluent discharge causes, has the reasonable potential to cause, or contributes to an excursion above a narrative or numeric criteria within a State (or Territory) water quality standard, the permitting authority, such as EPA, shall use procedures which account for existing controls on point and nonpoint sources of pollution, and the variability of the pollutant or parameter in the effluent. Such procedures include a Reasonable Potential Analysis ("RPA"), which was conducted for each potential pollutant or parameter below, except pH. The RPA was based on statistical procedures outlined in EPA's *Technical Support Document for Water Quality-based Toxics Control*, Second Printing (EPA/505/2-9-001). These statistical procedures result in the calculation of the potential maximum effluent concentration-based on monitoring data provided by the permittee. Due to the limited monitoring data available (n=78) and the high degree of effluent variability, maximum effluent concentrations were estimated using a coefficient of variation of 0.6 and the 99 percent confidence interval of the 99th percentile based on an assumed lognormal distribution of daily effluent values (*Technical Support Document for Water Quality-based Toxics Control*, Second Printing, Sections 3.3.2 and 5.5.2, EPA/505/2-9-001). The maximum effluent concentration was then compared to the Guam water quality standard to determine reasonable potential. Table 2 provides a

Table 2 – Comparison of water quality-based effluent limit ("WQBEL") from the 2000 NPDES permit or Guam Water Quality Standard and the estimated maximum concentration of the pollutant or parameter using Reasonable Potential Analysis ("RPA"). Sample number, *n*, is based on data reported on the Discharge Monitoring Report ("DMR") forms.

Pollutant/ Parameter	**Guam Water Quality Standard or Technology-Based Standard**	**Daily Max. Concentration from DMRs**	***n***	**RPA Multiplier**	**Statistically Estimated Max. Concentration**	**Exceeds Standard?**
Oil and Grease (mg/l)	15	12.3	78	1.5	18.45	Yes
Lead (mg/l)	0.0081	0.005	78	1.5	0.0075	No
Benzene (mg/l)	0.0071	1.4	78	1.5	2.1	Yes
Toluene (mg/l)	200	2.19	78	1.5	3.285	No
Ethylbenzene (mg/l)	2.1	0.057	78	1.5	0.0855	No
Xylene (mg/l)	NA	1.05	78	1.5	1.575	NA

[3]Based on a comparison of statistically-estimated maximum concentration only; reasonable potential exists for ethylbenzene and xylene based on their presence in refined products the facility stores and distributes and their detection in the effluent.
[1]NA means not applicable since no water quality-based standard has been established for the pollutant or parameter.

detailed RPA for each pollutant or parameter that causes, has the reasonable potential to cause, or contributes to an exceedance of Guam water quality standards.

For all parameters or pollutants that show a reasonable potential based on the statistical approach, numeric water quality-based effluent limits were included in the draft permit and are described below (40 CFR 122.44(d)(1)). Water quality-based effluent limits were established without consideration of a mixing zone. In addition, for all reissued permits, section 402(o) of the CWA and 40 CFR 122.44(l) require permit limitations and conditions to be as stringent as the previous permit unless specific exceptions apply. The draft permit contains no specific exceptions. Table 3 provides a summary of effluent limitations, monitoring frequency, and sample types for each pollutant or parameter in the draft permit that was shown reasonable potential to cause, or contribute to an exceedance of Guam water quality standards.

1. *pH* - The range of pH values is based on Guam's water quality standards, which require that all marine waters, including Category M-3 marine waters, maintain a pH range of 6.5 to 8.5. Therefore, the proposed pH range for the effluent is 6.5 to 8.5.

2. *Oil and Gas* - As previously described, a numerical technology-based effluent limit is proposed for oil and grease (15 mg/L). In addition, a narrative water quality-based effluent limit is proposed since it is commonly found in wastewater and storm

Table 3 - Proposed effluent limitations, monitoring frequency, and sample type for each pollutant or parameter for Discharge Outfall Nos. 001 and 002.

Pollutant/Parameter	**Daily Max. Allowable Effluent Limitation**	**Monitoring Requirements**	
		Monitoring Frequency	**Sample Type**
Flow Rate (MGD)[1]	NA[2]	Continuous	Metered
pH (Std. Units)[3]	6.5/8.5	Once/Month[4]	Grab[5]
Oil and Grease (mg/l)	15	Once/Month	Grab
Lead (mg/l)[6]	0.0081	Once/Month	Grab
Benzene (mg/l)	0.071	Once/Month	Grab
Toluene (mg/l)	NA	Once/Month	Grab
Ethylbenzene (mg/l)	NA	Once/Month	Grab
Xylene (mg/l)	NA	Once/Month	Grab

[1]MGD means million gallons per day.
[2]NA means not applicable since no numerical effluent limits were established for the pollutant or parameter; only monitoring and reporting is required for the duration of the permit.
[3]pH effluent limits reported as minimum/maximum concentrations; pH shall be measured at the time of sampling.
[4]If there is no discharge from an outfall during any one month period, report "C" in the "No Discharge" box on the Discharge Monitoring Report form for that month.

[5]A “grab” sample is a single sample collected at a particular time and place that represents the composition of the discharge only at that time and place.
[6]Report as total recoverable metal.

water from bulk petroleum storage facilities and, based on the RPA, has a reasonable potential to cause, or contributes to an exceedance of Guam water quality standards. The proposed narrative effluent limit for oil and grease is based on Guam's water quality standards and includes the prohibition of visible sheening (see PART VI (D)).

3. *Lead* - Although the statistical approach of the RPA did not show a reasonable potential for lead, an effluent limit is proposed for lead since lead is commonly found in fuel oil and oily wastewaters and has been shown to occur in wastewater and storm water effluent from similar facilities in Guam. The proposed discharge limit for lead is 0.0081 mg/l and is based on Guam water quality standards for aquatic life protection (i.e., Criteria Continuous Concentration for marine waters). The limit is based on total recoverable metal and the potential for chronic exposure of lead to aquatic life.

4. *Benzene* - An effluent limit is proposed for benzene since it is a common component of gasoline and other petroleum products and, based on the RPA, has the reasonable potential to cause, or contributes to an exceedance of Guam's water quality standards. The proposed discharge limit for benzene is 0.071 mg/l. The limit is based on the human health risk (1×10^{-6} carcinogenic risk) of the consumption of aquatic organisms only (in contrast to consumption of water and aquatic organisms). Where aquatic life protection is included as a water quality standard, as is the case with Category M-3 marine waters, fish consumption criteria is applied to all aquatic life uses.

5. *Toluene, Ethylbenzene, and Xylene* – Although the statistical approach of the RPA did not show a reasonable potential, based on best professional judgment, monitoring and reporting requirements are proposed for toluene, ethylbenzene and xylene since these pollutants are commonly present in refined oil products and have been shown to be present in the effluent and in effluent at similar facilities in Guam. At this time, there is no numeric water quality-based effluent limit proposed for toluene, ethylbenzene, or xylene.

PART VI – DETERMINATION OF NARRATIVE WATER QUALITY -BASED EFFLUENT LIMITS

Sections 5103 and 5104 of Guam water quality standards contain narrative water quality effluent limits that apply to Category M-3 marine waters and that are applicable to the effluent. The draft permit proposes the following narrative water quality-based effluent limits based on Guam water quality standards.

A. The discharge shall be free from substances, conditions, or combinations thereof that:

   1. cause visible floating materials, debris, oils, grease, scum, foam, or other floating matter which degrades water quality or use;

2. produce visible turbidity, settle to form deposits or otherwise adversely affect aquatic life; produce objectionable color, odor or taste, directly or by a chemical or biological action;

3. injure or are toxic or harmful to humans, animals, plants or aquatic life; or

4. induce the growth of undesirable aquatic life.

B. The discharge shall not cause the turbidity values in the receiving water to exceed 1.0 Nepthleometric Turbidity Units over ambient conditions.

C. The discharge shall not cause the temperature of the receiving water to be changed by more than 1.8°F (1.0°C) from ambient conditions.

D. The discharge shall not contain concentrations of oil or petroleum products that:

1. cause a visible film, or sheen, or result in visible discoloration of the surface with a corresponding oil or petroleum product odor;

2. cause damage to fish, invertebrates, or objectionable degradation of drinking water quality; or

3. form an oil deposit on the shores or bottom of the receiving body of water.

E. The discharge shall be free of toxic substances in concentrations that produce detrimental physiological, acute or chronic responses in human, plant, animal or aquatic life.

F. The discharge shall be free of toxic substances in concentrations that produce contamination in harvestable aquatic life to the extent that it causes detrimental physiological, acute or chronic responses in humans or protected wildlife, when consumed.

G. The survival of aquatic life in marine waters subjected to the discharge, or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge.

H. The discharge, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard.

I. The discharge of pollutants at any point other than specifically described in the draft permit is prohibited, and constitutes a violation thereof.

PART VII - MONITORING AND REPORTING REQUIREMENTS

The draft permit requires the permittee to continue to monitor for pollutants or parameters with technology-based effluent limits (i.e., oil and grease) and water quality-based effluent limits (i.e., pH, lead, and benzene) in the effluent for the duration of the draft permit. Pollutants or parameters with water quality-based effluent limits shall be monitored once per month with grab sampling methods. In addition, the draft permit requires toluene, ethylbenzene and xylene to be monitored for once per month using the same methodology. The draft permit also requires photo documentation of the discharged effluent once per quarter. This is a new requirement. All monitoring, sampling, and analyses shall be performed as described in the most recent edition of 40 CFR 136, unless otherwise specified in the draft permit. All monitoring data shall be reported on monthly DMR forms and submitted quarterly to EPA and the Guam Environmental Protection Agency ("Guam EPA"), as specified in the draft permit.

PART VIII - SPECIAL CONDITIONS

Pursuant to 40 CFR 122.44(k), EPA may impose Best Management Practices ("BMPs") which are "reasonably necessary…to carry out the purposes of the Act." The pollution prevention requirements or BMPs in the draft permit operate as technology-based limitations on effluent discharges that reflect the application of Best Available Technology and Best Control Technology. Therefore, the draft permit requires the permittee to develop (or update) and implement a Pollution Prevention Plan with the appropriate pollution prevention measures or BMPs designed to prevent pollutants from entering Apra Harbor and other surface waters while maintaining, transporting, and storing petroleum products or other potential pollutants at the facility.

In response to EPA's request on March 8, 2006, the permittee will be submitting wet weather effluent data on BOD, COD, TOC, TSS, ammonia, temperature, and pH for consideration in the permit renewal process. Due to dry weather conditions, the permittee has been unable to collect this information prior to public notice of the draft permit. Upon receipt of this new information, EPA will either consider it as part of the permit renewal process, or reopen and revise the final permit as provided under 40 CFR 122.62 (see Part V - Permit Reopener in the draft permit).

PART IX - IMPACT ON THREATENED AND ENDANGERED SPECIES

Section 7 of the Endangered Species Act of 1973 (16 U.S.C. § 1536) requires federal agencies to ensure that any action authorized, funded, or carried out by a federal agency does not jeopardize the continued existence of a listed or candidate species, or result in the destruction or adverse modification of its habitat. Apra Harbor is a near-shore water generally used for shipping, boating and berthing, industrial cooling water, and marinas. On November 10, 2005, EPA requested informal consultation with the U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration - Fisheries (collectively referred to as "the Services") to identify any federally listed, proposed and candidate endangered or threatened species and designated and proposed critical habitats that occur in Apra Harbor or in the vicinity of the effluent discharge. In response, the Services provided the following list of endangered and

threatened species under their jurisdiction that may be present in the vicinity of the effluent discharged to Apra Harbor.

ESA Endangered or Threatened Species	Activity
Endangered hawksbill turtle (*Eretmochelys imbricata*)	Feeding/Swimming
Threatened green sea turtle (*Chelonia mydas*)	Feeding/Swimming

The endangered hawksbill turtle (*Eretmochelys imbricata*) and threatened green sea turtle (*Chelonia mydas*) are two of seven species of sea turtles found throughout the world. In Guam, the hawksbill turtle is less commonly observed than the green sea turtle; however, Apra Harbor is considered a prime feeding area for both due to the high invertebrate and sponge population (Davis G., ARA for Habitat, NOAA-PIRO, personal communication, January 30, 2006). To date, there is no information available on the size of the turtle populations feed in Apra Harbor. Throughout the Pacific Islands, including Guam, hawksbill and green sea turtle populations have dramatically declined mainly due to poaching, habitat loss, boat collisions, bycatch, and disease. Water quality could also potentially affect hawksbill and green sea turtles via absorption of contaminants or direct ingestion of contaminated water or prey. The effluent discharged from the facility is characterized largely by storm water, which is treated by an oil and water separator prior to it being discharged to Apra Harbor. Although monitoring data have shown some exceedances of water quality standards during the previous five-year permitting period (Table 1), EPA believes that the technology and water quality-based effluent limits in the proposed permit will not result in significant acute or chronic exposures of contaminants to the hawksbill turtle or green sea turtle. These effluent limits also are not likely to affect the availability or distribution of prey species or produce undesirable aquatic life within Apra Harbor that may impact hawksbill or green sea turtles. As previously described, numerical and narrative water quality-based effluent limits and narrative water quality standards proposed in the draft permit are based on Guam water quality standards for the protection of aquatic life uses whereas technology-based effluent limits are based on BPJ. Therefore, EPA has determined that reissuance of the NPDES permit for the South Pacific Petroleum Corporation facility at 1118 Cabras Highway in Piti, Guam would not affect hawksbill and green sea turtles.

EPA will provide the Services with copies of this fact sheet and the draft permit during the public notice period. Any comments received from the Services regarding this determination will be considered prior to issuance of the permit.

PART X - ADMINISTRATIVE INFORMATION

A. Public Notice

In accordance with 40 CFR 124.10, the EPA Director shall give public notice that a draft NPDES permit has been prepared under 40 CFR 124.6(d) by mailing a copy of the notice to the permit applicant and other federal and state agencies, and through publication of a notice in a daily or weekly newspaper within the area affected by the facility. The public notice shall allow at least 30 days for public comment on the draft permit.

B. Public Comment Period

In accordance with 40 CFR 124.11 and 12, during the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments shall be considered in making the final decision and shall be answered as provided in 40 CFR 124.17. In accordance with 40 CFR 124.13, all persons must raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position by the close of the public comment period.

Comments may be submitted either in person or mailed to:

Regional Administrator
EPA Region IX
Pacific Islands Office, CED-6
75 Hawthorne Street
San Francisco, California 94105

and

Administrator
Guam EPA
P.O. Box 22439-GMF
Barrigada, Guam 96921

Interested persons may obtain further information, including copies of the draft permit, fact sheet, and the permit application, by contacting Mr. Mike Lee at the EPA Region IX address listed above. Copies of the Administrative Record (other than those which EPA Region IX maintains as confidential) are available for public inspection between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday (excluding federal holidays).

C. Public Hearing

In accordance with 40 CFR 124.12, the EPA Director shall hold a public hearing whenever she finds, on the basis of requests, a significant degree of public interest in a draft permit. The Director may also hold a public hearing when, for instance, such a hearing might clarify one or more issues involved in the permit decision. Public notice of such hearing shall be given as specified in 40 CFR 124.10.

D. Territorial Certification

In accordance with 40 CFR 124.53, under section 401of the Act, EPA may not issue a permit until a certification is granted or waived in accordance with that section by the State or Territory in which the discharge originates or will originate. EPA shall send Guam EPA a copy of the draft permit, a statement that EPA cannot issue or deny the

permit until the Territory of Guam has granted or denied certification under 40 CFR 124.55, or waived its right to certify, and a statement that the Territory of Guam will be deemed to have waived its right to certify unless that right is exercised within a specified reasonable time not to exceed 60 days from the date the draft permit is mailed to Guam EPA unless EPA Regional Administrator finds that unusual circumstances require more a longer time. Territorial certification under section 401 shall be in writing and shall include the conditions necessary to assure compliance with referenced applicable provisions of sections 208(e), 301, 302, 303, 306, and 307 of the CWA and appropriate requirements of Territory law.